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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,100	11/29/2001	A. Roger Guillemette	445-008969-US(I01)	6244

2512 7590 10/22/2004

PERMAN & GREEN
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FAIRFIELD, CT 06824

EXAMINER	
EASHOO, MARK	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/997,100	GUILLEMETTE, A. ROGER	
	Examiner	Art Unit	
	Mark Eashoo, Ph.D.	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,18 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-14* is/are allowed.

6)☒ Claim(s) *1-10,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 6-10 are rejected under 35 USC 102(b) as being unpatentable over Kragle et al. (US Pat. 5,692,271).

Regarding claims 1 and 6: Kragle et al. teaches the claimed extrusion die, comprising: a distribution module having a plurality of channels which supply a portion/ratio of a material flow to a die outlet (Fig. 2, elements 22); a die module having an extrusion passage to receive a material flow (Fig. 2, element 26); and wherein a die outlet has a cross section that has divided flow regions such that at least one flow channel in the distribution module flow directly to one of the divided flow regions (Fig. 2, elements 23 flow into elements 27).

It is inherent that the area of the distribution channels (Fig. 2, element 23) are of some portion or ratio of the cross sectional output of the die otherwise a non-equal flow balance would result making the assembly of Kragle et al. non functional or unable to make a desirable product.

Regarding claims 2 and 7: Kragle et al. further teaches a series of assembled modules and at least one transition module having channels communicating with the channels in both the distribution module and die (Fig. 2, element 24).

Regarding claims 3 and 8: Kragle et al. further teaches that at least one distribution channel forms an independent regional flow stream (Fig. 2, elements 23 lead to separate elements 29a and 29b) thereby forming an independent material supply to a specific region of the die or component of the extrudate (Fig. 2, element 24).

Regarding claims 4 and 9: Kragle et al. also teaches that the distribution channels are constructed with smaller cross sections than a channel immediately upstream (fig. 2, elements 29b, 29a, 23). Although Kragle et al. is silent with respect to a "funnel effect", applicants' original specification (pg. 9) states that a funnel effect ".. is accomplished by reducing the cross sectional area of adjoining portion of the flow path". Therefore, it is inherent that Kragle et al. provides the same funnel effect.

Regarding claims 5 and 10: Kragle et al. further teaches a series of assembled modules and at least one module having a greater number of channels than the preceding or adjacent upstream module (Fig. 2, elements 22 and 24).

Claims 18-19 are rejected under 35 USC 102(b) as being unpatentable over Kragle et al. (US Pat. 5,692,271).

Regarding claim 18: Kragle et al. teaches the claimed extrusion die, comprising: an upstream inlet (element 23) and downstream outlet (element 27), whereby a specific profile is extruded (Fig. 2); a plurality of flow regions that form part of the specific profile (Fig. 2, element 27); and a plurality of axial assembled distribution modules having an array of distribution channels wherein the number of channels increase from the upstream module to an adjacent downstream module to provide at least one flow channel to each of the plurality of flow regions (Fig. 2, elements 22, 24 and 27).

Kragle et al. also teaches that the distribution channels are constructed with smaller cross sections than a channel immediately upstream (fig. 2, elements 29b, 29a, 23). Although Kragle et al. is silent with respect to a "funnel effect", applicants' original specification (pg. 9) states that a funnel effect ".. is accomplished by reducing the cross sectional area of adjoining portion of the flow path". Therefore, it is inherent that Kragle et al. provides the same funnel effect.

Regarding claim 19: Kragle et al. further teaches that the number of channels in an array doubles in number from an upstream module to an adjacent downstream module (Fig. 2, elements 23, 29a, and 29b).

Allowable Subject Matter

Claims 11-14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or render obvious a method of constructing an extrusion die system as instantly claimed, wherein the cross sectional profiles are analyzed and divided into calculated ratios for each regional area. It is noted that the extrusion assembly of Kragle et al., is inherently constructed/assembled and would normally be engineered to some extent. However, even though Kragle et al. shows various cross sectional profiles/conduits which are divided into smaller regional areas, there is no evidence on the record suggesting the analysis and calculations as set forth in the same manner as in instant claims.

Response to Arguments

Applicant's arguments with respect to claims 1-10 and 18-19 have been considered but are moot in view of the new ground(s) of rejection and/or have been substantially responded to in the above rejection.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

21/01/04

me
21 October 2004